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REMARKS

Claims 1-15 and 17-21 are in the application.

Claim 16 is cancelled.

New claim 21 is added.

The specification is amended to correct a typographical error in the originally filed application that omitted the brief description of FIG. 5.

35 USC 102 Rejection:

Claims 1-20 were rejected under 35 U.S.C. 102 as being anticipated by Asada et al (United States patent number 5,936,440) ("Asada"). This rejection is respectfully traversed.

Applicants' claim 1 includes, among other elements, configuring a first circuit of the self-gated transistor to disable the transistor substantially upon a positive current flow through the transistor and to enable the transistor responsively to a negative current flow through the transistor. At least this element of claim 1 is not disclosed by Asada.

At the minimum, Asada does not disclose configuring a first circuit to disable the transistor substantially upon a positive current flow through the transistor. Asada discloses in column 3, lines 57-65, that transistor 10 is enabled by control signal Vc in response to the value of the battery voltage. Note that positive current flow through transistor 10 occurs only after transistor 10 is enabled by control signal Vc. Asada does not disclose enabling transistor 10 upon a positive current flow through

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transistor 10. Accordingly, it is respectfully submitted that at least this element of claim 1 is not disclosed by Asada.

Claims 2-7 depend from claim 1 and are believed to be allowable for least the same reasons as claim 1.

Applicants' claim 8 includes configuring the self-gate transistor to conduct a second current through the sensing portion as a second sense signal wherein the second current flows in a direction opposite to the first current, and configuring the self-gate transistor to detect the second sense signal and responsively enable the self-gated transistor. At least this element of claim 8 is not disclosed by Asada. Asada does not disclose creating a sense signal that indicates the second current flow that is opposite in direction to the first current flow and does not disclose enabling the self-gated transistor responsively to this second current flow. Asada discloses in column 3, lines 57-65, enabling transistor 10 in response to a value of the battery voltage. Accordingly, it is respectfully submitted that claim 8 is not anticipated by Asada.

Claims 9-11 depend from claim 8 and are believed to be allowable for least the same reasons as claim 8.

Applicants' claim 12 includes, among other things, a control circuit coupled to receive the sense signal and drive the first gate to enable the transistor responsively to a first polarity of the sense signal. Note that in FIG. 5, Asada does not enable transistor 10 responsively to the value of the sense signal from transistor 841. Although

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transistor 841 generates a sense signal, gate 501 forces circuit 7 to enable transistor 10 responsively to the value of the Vc signal received on input 500 and does not enable transistor 10 responsively to the value of the sense signal from transistor 841. Accordingly, it is respectfully submitted that Asada cannot disclose claim 12.

Claims 13-15 and 17-20 depend from claim 12 and are believed to be allowable for least the same reasons as claim 12.

Additionally, claim 19 includes, among other features, a voltage regulator coupled to provide an operating voltage to the comparator and coupled to a source of the self-gated transistor. Applicants respectfully submit that this element of claim 19 is not disclosed by Asada. The Office Action states on page 5 that "is inherent for figure 5 to have a voltage regulator (circuit, not shown) coupled to provide an operating voltage to the comparator ... (the comparator must be powered in order to operate, the circuit, not shown, that powers the comparator is considered as a voltage regulator)."

It is well established that for a claim element to be inherent, it must necessarily flow from the teachings of the applied prior art. Applicants respectfully submit that it does not necessarily flow from the teachings of Asada that the circuit must have a voltage regulator coupled to provide an operating voltage. This is supported in FIG. 1 where Asada discloses that the power to operate circuit 4 is provided by battery 2, note the connection from battery 2 to terminal T3 of circuit 4. Thus, it is respectfully submitted that comparator 840 in FIG. 5 would also operate from battery 2 and that a separate voltage regulator is not

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required to provide the operating voltage to the comparator. Additionally, it is believed that Asada does not disclose any other source of operating power except battery 2. Accordingly, it is respectfully submitted that is not inherent that circuit 4 must have a voltage regulator to provide an operating voltage to the comparator. This is further supported by the fact that a separate voltage regulator is not shown in FIG. 1 as noted in the Office Action. Accordingly, it is respectfully submitted that claim 19 is not anticipated by Asada.

Also, claim 20 includes, among other features, the self-gated transistor formed in a package having no greater than 4 leads. The Office Action states on page 6 "figure 5 shows that the self-gated transistor formed in a package having no greater than 4 leads." Applicants respectfully submit that figure 5 is merely an illustration of a portion of FIG. 1, note column 6, lines 10-12, where Asada discloses that circuit 8 of FIG. 1 replaced by a modified protection circuit 8a. FIG. 1 clearly shows that circuit 4 must have at least 5 terminals denoted as T1-T5. Accordingly, it is respectfully submitted that Asada cannot anticipate claim 20.

New claim 21 depends from claim 1 and is believed to be allowable for least the same reasons as claim 1.

Additionally, new claim 21 includes, among other features, configuring an internal voltage regulator of the self-gated transistor to receive an external voltage having a first value from a voltage source external to the self-gated transistor and regulating the external voltage to form an internal operating voltage having a second value that is less in the first value including configuring the self-gated

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transistor to use the internal operating voltage to operate the first circuit. Asada does not disclose an internal voltage regulator that receives an external voltage and regulates it to a second value to use for operating the first circuit. Accordingly, it is respectfully submitted that Asada does not anticipate new claim 21.

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CONCLUSION

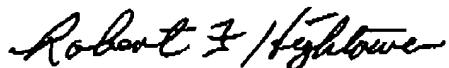
Applicant(s) made an earnest attempt to place this case in condition for allowance. In view of all of the above, it is believed that the claims are allowable, and that the case is now in condition for allowance, which action is earnestly solicited.

Because the claims are allowable, applicants respectfully submit that this amendment should be entered.

Although it is believed that no fees are due for this amendment, the Commissioner is hereby authorized to charge any fees that may be required or credit any overpayment to Deposit Account 50-1086.

If there are matters which can be discussed by telephone to further the prosecution of this Application, the Examiner is invited to call the undersigned attorney at the Examiner's convenience.

Respectfully submitted,
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